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universitete (Scientific Research Radiophysics Institute at Gor'kiy University)

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OTHER: 006

Card 2/2

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2

BONDAR', L.N.; KROTIKOV, V.D.; STANKEVICH, K.S.; TSEYTLIN, N.M.

Measurement of the atmospheric absorption of radio waves in the
S-band. Radiotekhnika i elektron. 10 no.4:755-756 Ap '65. (MIRA 18:5)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2"

L 41069-65 FBD/ENI(1)/ENG(1)/EEC-4/EEG(t) Pe=5/Pae=2/Pi=4 RE/GN/IS-4
ACCESSION NR: AP5010109 UR/0109/65/010/004/0755/0756

AUTHOR: Bondar', L. N.; Krotikov, V. D.; Stankevich, K. S.; Tseytlin, N. M. 39 B

TITLE: Measurements of decimeter-wave absorption in the atmosphere

SOURCE: Radiotekhnika i elektronika, v. 10, no. 4, 1965, 755-756

TOPIC TAGS: radio wave absorption, atmospheric thermal radiation, radiation temperature distribution

ABSTRACT: Radio wave absorption was measured from the natural thermal radiation of the atmosphere at the 31.2-, 40.5-, and 58.6-cm wavelengths. The corresponding directional patterns of the antenna system were 38, 52, and 72' at the half-power points. The vertical distribution of the radiation temperature was recorded at night, in clear weather, and at altitudes ranging from 5 to 50°, with the directional pattern of the radio telescope passing through the high galactic latitudes. The radiation temperature brightness was determined by comparing antenna temperatures during reception to those from discrete source Cassiopeia-A. Curves of atmospheric radiation temperature vs altitude are plotted in Fig.1 of Enclosure. The total absorption in the direction of the zenith calculated at the investigated wavelengths was 0.06 db ±15%. Orig. art. has: 1 figure. [JR]

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SUBMITTED 12 APR 69

POLOVIN, A.N.; PAVLENKO, V.D.; STANKOVICH, K.G.; VOLKOV, V.

Report of some remnants of cryptosource in the design office.

1970, March 20; radiotext, Mar. 31, 1970

(MUR 15:3)

• Nauchno-issledovatel'skiy radiofizicheskiy institut pri SSSR.

Kievskom universitete.

REVIEWED

Octamethylhexane from 2-chloro-2,3,3-trimethyl-1-butano. I. S. Boudar and N. D. Zelinskii (M. V. Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.R.* **72**, 881-4 (1950). — $MgCCMe_4Cl$ with di-Bt cyclohexylmalonate or $CH_3(CO_2Et)_2$ itself, yields, instead of the expected condensation products, 2,2,3-trimethylbutene and octamethylhexane, $Me(CMe_3)_2Cl$, m. 31° (I). The reaction mixt. yields the dimerized malonate as by-product; thus up to 16% tetra-Bt 1,2-dicyclohexyl-1,1,2,2-ethanetetracarboxylate (III) was isolated from the mixt. with the cyclohexylmalonate, while $CH_3(CO_2Et)_2$ gave the tetra-Bt 1,1,2,2-ethanetetracarboxylate, m. 75.6°, b.p. 205-11°. With PhMe as solvent instead of EtOH, the yield of I drops to 10%. The olefin formed in the reaction is the product of HCl loss from the original chloride. Typical reaction: the Na deriv. from 5.6 g. di-Bt cyclohexylmalonate and 0.51 g. Na in 15 ml. abs. EtOH was treated with 3 g. of the chloride in hot alc. and the mixt. heated in an ampul 45 hrs. at 100-5°; after distn. of the solvent (the olefin passes with the EtOH) and may be converted with fuming HCl to the chloride which ppts. out and m. 131° in a sealed capillary; the residue with H_2O gave 18% I, while the residual liquid yielded 14% II, b.p. 180-8°. In the same way $CH_3(CO_2Et)_2$ gave 0.5 g. I, 5.6 g. $CH_3(CO_2Et)_2$, and 0.6 g. $[CH(CO_2Et)_2]_2$. G. M. Kosolapoff

BONDAR', L.S.; CHUDEV, R.A.; RODIONOV, P.P.; PYLINA, N.V.

Re-esterification of malonic acid esters. Izv. AN SSSR. Ser. khim.
no.10:1893-1894 '65. (MIRA 18:10)

I. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2

BONDAR L.S.

Visschie Zhirnie Kisloti i Yih Otnoshenie K Tuberkuleznim Batsillam (Higher Fat Acids and their Relation to Tubercular Bacilli), Moscow, 1951.

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2"

*CP**10*

Higher-branched acids. N. D. Zefnash, L. S. Bondar,
V. N. Kost, and B. V. Lifshits (Moscow STATE Univ.),
Izv. Akad. Nauk S.S.R., Otdel. Khim. Nauk 1981,
No. 2, 96-9. —1-Methyl-2-bromocyclohexane (80 g.) with
CH₂Na(CO₂)₂B₉H from 11.6 g. Na and 80 g. CH₂(CO₂)₂B₉H
gave 49.1% *di-Et* 2-methylcyclohexanemalonate, b.p. 180-2°;
this (30 g.) condensed with 18.1 g. geranyl chloride in the
presence of 2.5 g. Na in MePh gave *di-Et* α -geranyl- β -
methylcyclohexanemalonate, b.p. 201-3°, b.p. 208-11°, n_D²⁰
1.4779, d₄²⁰ 0.9701. Hydrolysis of this with concd. NaOH,
acidification with HCl, and thermal decarbonylation gave
63.3% α -geranyl- β -methylcyclohexanecarboxylic acid, b.p. 212-16°,
n_D²⁰ 1.4811, d₄²⁰ 0.9442. Reaction of 11.2 g. *di-Et* cyclo-
hexanemalonate with 10.7 g. Na in MePh, then with 92 g.
bromocyclohexane gave 14.7% *di-Et* di(cyclohexylmalonate),
b.p. 164-73°, n_D²⁰ 1.4778, d₄²⁰ 1.0340. Similarly 1-methyl-2-
bromocyclohexane with *di-Et* 2-methylcyclohexanemalonate
and Na gave 10% *di-Et* α (2-methylcyclohexyl)malonate, b.p.
190-8°, d₄²⁰ 0.9861, n_D²⁰ 1.4672. A similar reaction gave
1.4% *di-Et* 1-ethylcyclohexanemalonate, b.p. 180-90°; reac-
tion with 1-methyl-1-bromocyclohexane failed to give any
desired 1-Me analog. However, the formation of the di-
cyclohexylmalonate (above) disproves the contention of
Hope and Perkin (*C.A.* 3, 2965) about steric hindrance.
G. M. Kosolapoff

BONDAR', L.S.; OKUNEV, R.A.

Higher fatty acids. Report No.3: Alkyl-substituted geranylacetic acids. Izv. AN SSSR. Ser. khim. no.11:1996-2000 '65.

(MIRA 18:11)

1. Institut organicheskoy khimii im. N.P. Zelinskogo AN SSSR.

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2

BONDAR', L.Ya.

Concerning B.M. Shumiagskii's tables for solving cubic equations.
Trudy TASHIIT no.18:15-17 '61.
(MIRA 18:3)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2"

BONDAR, M.; JANISZEWSKI, N.

Automatization of the chipping of pulpwood in chippers. Tr. from the Russian.
p. 279. (PRZEGLAD PAPIERNICZY, Vol. 10, No. 9, Sept. 1954, Lodz, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec.
1954, Uncl.

TIMCHUK, Aleksandr Ivanovich; TABACHNIKOV, Izrail' Zus'yevich; RONDAR', M.
redaktor; SAL'NIKOV, G., vedushchiy redaktor; NOVIK, A., tekhnicheskiy
redaktor

[Pneumatic and hydraulic machine-tool attachments] Pnevmaticheskie
i gidravlicheskie stanochnye prisposobleniya. Kiev, Gos. izd-vo
tekhn. lit-ry USSR, 1957. 225 p. (MLRA 10:4)
(Machine tools--Attachments)

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2

BONDAR', M.D.

Antral gastritis. Trudy Inst. klin. i eksp. khir. AN Kazakh.
SSR 8:151-154 '62. (MIRA 17:7)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2"

V 238A Bendov M. G. Electrical simulation of the dynamic stability of systems of bars (in Russian), Dopovidi Akad. Nauk Ukrains. RSR no. 3, 356-360, 1954; Zb. Nekh. 1955, Rev. no. 1654.

It is suggested to use an electric matrix simulator with quadripoles (amplifiers) for solving the problem of the stability of a bar system described by a system of linear differential equations of the second order with variable coefficients. A comparison is made between the equations of the initial system and the simulator on the assumption of ideality of the amplifiers (amplification coefficient $\mu = \text{const}$) and the passive elements (L, C, R) of the matrix system. The comparison is made with an analysis of the possibilities of realization of the electrical matrix system with inductive and capacitive coupling, analysis of the conditions of parasitic self-excitation, or the accuracy of simulation. The author also introduces an error of principle (cf. p. 358, line 7 et seq.), correlating in the simulator the behavior of the active, directional quadripole amplifier with that of the passive quadripole, the transformer.

I. M. Terel'daum, USSR

Courtesy of Referativnyi Zhurnal

Translation, courtesy Ministry of Supply, England

16,8000

244100(1327,1103,1057)

AUTHOR: Bondar, M.G. (Dnipropetrov'sk)

29220

S/198/61/007/005/001/015
D274/D303TITLE: Nonlinear oscillation problems of frictionless
systems solved by the method of the variable time
scale

PERIODICAL: Prykladna mekhanika, v. 7, no. 5, 1961, 465 - 476

TEXT: By introducing a variable time scale, the nonlinear equations reduce to linear equations with constant coefficients; hence the linear theory can be used for solving them. Nonlinear free oscillations, described by

$$\ddot{x}(t) + f(x)f'(x) = 0 \quad (1.4)$$

are considered. By introducing the variable time scale

$$Z = f(x); \quad \epsilon = \varphi(t); \quad \dot{\phi} = f'(x), \quad (1.6)$$

Eq. (1.4) reduces to the linear equation with constant coefficients $Z''(\epsilon) + Z(\epsilon) = 0$, whose solution is

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$$z(\varepsilon) = A \cos \varepsilon + B \sin \varepsilon \quad (1.7)$$

where A and B are arbitrary integration constants, determined from the initial conditions. Expression (1.7), reduced by virtue of Eq.(1.6) to the form

$$f(x) = A \cos \varphi(t) + B \sin \varphi(t), \quad (1.8)$$

is the solution of Eq. (1.4) and of the equation $f'(t) + R(x) = 0$. For the velocity of oscillations one obtains

$$\dot{x} = B \cos \varphi(t) - A \sin \varphi(t). \quad (1.9)$$

By using the initial conditions $t = 0; x = x_0; \dot{x} = v_0$ one obtains from formulas (1.8) and (1.9) a system of equations, whose solution yields

$$\begin{aligned} f(x) &= f(x_0) \cos \eta(t) + v_0 \sin \eta(t), & \eta(t) &= \\ &= \varphi(t) - \varphi(0). \end{aligned} \quad (1.10)$$

The functions φ and η are determined by means of Eq. (1.6), repla-
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Nonlinear oscillation problems ...

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cinc in it $f'(x)$ by some function $\psi(\eta)$, i.e.

$$\frac{d\varphi}{dt} = \frac{d\eta}{dt} = f'(x) = \psi(\eta). \quad (1.11)$$

The solution of this equation yields the integral

$$\int_0^\eta \frac{d\eta}{\psi(\eta)} = t, \quad (1.12)$$

which can be sometimes reduced to an elliptical integral. Further, the classical example of oscillations of a mathematical pendulum with finite amplitude is considered. The pendulum oscillations are described by

$$\ddot{\theta} + \frac{g}{l} \sin \theta = 0; \quad (2.1)$$

its solution is $\sin \frac{\theta}{2} = a \sin \alpha(t)$, whence $\theta = 2 \arcsin [a \sin \alpha(t)]$, where

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Nonlinear oscillation problems ...

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$$a = \sqrt{(\sin \frac{\theta_0}{2}) + \frac{\omega_0^2 l}{4g}}; \quad \alpha(t) = \eta(t) + \beta; \quad \beta = \text{arc tg} \frac{2 \sin \frac{\theta_0}{2}}{\omega_0} \sqrt{\frac{g}{l}}. \quad (2.3)$$

The phase angle α can be approximated by a linear function

$$\alpha(t) \approx \frac{\pi}{2} - \sqrt{\frac{l}{g}} [1 - \frac{1}{4} (\sin \frac{\theta_0}{2})^2] t; \quad (2.7)$$

by virtue of $\alpha(T/r) = 0$, one obtains from formula (2.7):

$$T \approx 2\pi \sqrt{\frac{l}{g}} [1 + \frac{1}{4} (\sin \frac{\theta_0}{2})^2]. \quad (2.8)$$

The accuracy of the obtained approximate expressions is analyzed. It is found that this accuracy is sufficient. Further, the oscillations of a pendulum whose axis rotates with angular velocity ω , are considered. The relevant equation is

$$\ddot{\theta} - \omega^2 \sin \theta (\cos \theta - \lambda) = 0, \text{ where } \lambda = \frac{g}{l\omega^2} \quad (2.9)$$

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Nonlinear oscillation problems ...

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If the function $R(x)$ (see above) is expanded in series and only the first two terms retained, then

$$\ddot{x} + \alpha x + \beta x^3 = 0. \quad (2.13)$$

For initial velocity $v_0 = 0$,

$$x = \sqrt{\frac{\alpha}{\beta}} \left[\sqrt{1 + \frac{\beta}{\alpha} x_0^2 (2 + \frac{\beta}{\alpha} x_0^2) \cos^2 \eta(t)} - 1 \right]. \quad (2.15)$$

A formula, analogous to (1.12), is obtained. With not too large amplitudes, this formula can be simplified leading to \checkmark

$$\eta(t) = - \nu t, \quad (2.16)$$

where $\nu = \sqrt{\alpha} (1 + \frac{3}{8} \frac{\beta}{\alpha} x_0^2); \quad (2.17)$

$$T = \frac{2\pi}{\nu} = \frac{2\pi}{\sqrt{\alpha}} (1 - \frac{3}{8} \frac{\beta}{\alpha} x_0^2). \quad (2.18)$$

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The accuracy of formula (2.18) is verified. Further, formula (2.17) is used for calculating the frequency of oscillation of a string with an attached weight. In the following, the forced oscillations of a nonlinear oscillator are considered:

$$\ddot{x}(t) + R(x) = F(t). \quad (3.1)$$

After introducing a variable time scale by Eq. (1.6), one obtains a linear equation, whose solution is

$$f(x) = A \cos \varphi(t) + B \sin \varphi(t) + \int_0^t F(\tau) \sin [\varphi(t) - \varphi(\tau)] d\tau. \quad (3.4)$$

The method is illustrated by solving Duffing's equation

$$\ddot{x} + \alpha x + \beta x^3 = F_0 \cos \omega t. \quad (3.7)$$

There are 3 figures and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc (in translation).

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Nonlinear oscillation problems ...

S/198/61/007/005/001/015
D274/D303

ASSOCIATION: Dnipropetrovs'kyy instytut inzheneriv transportu
(Dnipropetrovs'k Institute of Transportation
Engineers)

SUBMITTED: February 16, 1961

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29177
S/021/61/000/010/003/008
D251/D303

16.3400

Bondar, M.H.

AUTHOR:

TITLE: A new method of solving problems of the oscillations
of non-linear conservative systems

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 10,
1961, 1274 - 1277

TEXT: The author considers the equation of free oscillations of
a non-linear conservative oscillator in the most general case
 $\ddot{x}(t) + F(x) = 0$. (1)

By means of the transformations

$$f(x) = \left[2 \int_0^x F(u) du \right]^{\frac{1}{2}} \quad (2)$$

$$z = f(x); \quad \epsilon = \varphi(t); \quad \dot{\varphi} = f'(x) \quad (4)$$

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A new method of solving ...

Eq. (1) is reduced to the linear equation with constant coefficients

$$z''(\xi) + z(\xi) = 0$$

with solution

$$z(\xi) = A \cos \xi + B \sin \xi, \quad (5)$$

where A and B are constants of integration, to be determined from the initial conditions. By evaluating the phase angle from the last equation of (4), and writing

$$\frac{d\varphi}{dt} = \psi(\varphi), \quad (7)$$

the integral

$$\int_{\varphi_0}^{\varphi} \frac{d\varphi}{\psi(\varphi)} = t \quad (8)$$

is obtained. The author applies this method to the classical example of a mathematical pendulum of large amplitude, and states that the method increases the possibilities of representing analytically the free oscillations of non-linear conservative systems.

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A new method of solving ...

²⁹¹⁷⁷
S/021/61/000/010/003/008
D251/D303

ASSOCIATION: Dnipropetrov's'kyy in-t inzheneriv zaliznychnoho trans-
portu (Dnipropetrov's'k Institute of Railroad Transpor-
tation Engineering)

PRESENTED: by H.M. Savin, Academician AS UkrSSR

SUBMITTED: April 6, 1961

X
Card 3/3

16-3400

BONDAR, M. G.
Bondar, M. H.21355
S/021/61/000/011/002/011
D299/D304

AUTHOR:

TITLE: A solution for oscillation problems of a class of non-linear systems by the method of variable time scale

PERIODICAL: Akademiya nauk UkrRSR. Dopovidi, no. 11, 1961,
1415-1417TEXT: By means of a variable time scale, the nonlinear equation (1) is reduced to a linear equation with constant coefficients. The nonlinear oscillators of type \mathcal{Y}

$$\ddot{x}(t) + N(x) \cdot \dot{x}^2(t) + F(x) = 0 \quad (1)$$

are considered. Eq. (1) may describe either free oscillations or sustained oscillations (depending on the function $N(x)$). Setting

$$\Psi(x) = \int_0^x N(u)du, \text{ v.e. } \Psi'(x) = N(x) \quad (2)$$

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A solution for oscillation ...

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and introducing the variable time scale by means of

$$z = f(x); \xi = \varphi(t); \dot{\xi} = e^{-\Psi(x)} f'(x) \quad (5)$$

one obtains instead of nonlinear Eq. (1) the linear equation $z''(\xi) + z(\xi) = 0$, whose solution can be written in the form

$$f(x) = A \cos \varphi(t) + B \sin \varphi(t) \quad (6)$$

Eq. (6) is the solution of (1) in implicit form. The arbitrary constants A and B are obtained from the initial conditions $t = 0$, $x = x_0$, $\dot{x} = v_0$. Substituting the expressions for A and B in Eq.(6), one obtains

$$f(x) = f(x_0) \cos \varphi(t) + v_0 e^{\Psi(x_0)} \sin \varphi(t) \quad (8)$$

where

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A solution for oscillation ...

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$$\eta(t) = \varphi(t) - \varphi(0)$$

In order to find the function $\eta(t)$ of the phase angle, one uses the second of expressions (5),

$$\dot{\varphi}(t) = \dot{\eta}(t) = e^{-\psi(x)} f'(x) = \lambda(\eta) \quad (9)$$

hence

$$\int_0^{\eta} \frac{d\eta}{\lambda(\eta)} = t \quad (10)$$

As an example, the motion of a heavy point along a parabola is considered which rotates with constant angular velocity ω about its vertical axis. The equation of motion is set up. If $v_0 = 0$, the solution is

$$x = x_0 \cos \eta(t) \quad (12)$$

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From Eqs. (9) and (10) one obtains an elliptical integral of the second kind

$$E(\eta, k) = \int_0^\eta \sqrt{1 - k^2 \sin^2 \eta} d\eta = pt \sqrt{\frac{\lambda}{p^2 + x_0^2}} \quad (13)$$

where

$$k^2 = \frac{x_0^2}{p^2 + x_0^2}$$

An analysis of formulas (12) and (13) yields three possible cases:
 1) $\lambda > 0$; 2) $\lambda = 0$; 3) $\lambda < 0$. Hence the motion of the point is aperiodic, i.e. the equilibrium ($x = 0, y = 0$) is unstable. The same conclusion was arrived at by other authors by means of qualitative analysis. There is 1 figure and 2 Soviet-bloc references.

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A solution for oscillation ...

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S/021/61/000/011/002/011
D299/D304

ASSOCIATION: Dnipropetrov's'kyy instytut inzheneriv zaliznychnogo
transporty (Dnepropetrovsk Institute of Railroad
Transportation Engineers)

PRESENTED: by Academician H. M. Savin AS UkrRSR

SUBMITTED: April 6, 1961

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43187

S/021/62/0Q0/007/006/008
I006/I206

24.4/00

AUTHOR:

Bondar, M.G.

TITLE:

Approximate integration of oscillation equations of
non-linear systems with slowly varying parameters

PERIODICAL: Akademiya nauk Ukrayns'koy RSR. Dopovidi, no. 7, 1962, 879-882

TEXT: The approximate solution of equations of oscillation
of non-linear systems with slowly varying parameters is considered.
The method of variable time scale is utilized. The approximate
solution of the equation of oscillation of a pendulum with slowly
varying length is given as an illustration.

ASSOCIATION: Dnipropetrov's'kyi institut inzheneriv zaliznychnogo
transportu (Dnepropetrovsk Institute of Railroad
Engineering)

Card 1/2

S/021/62/000/007/006/008
1006/I206

Approximate integration... . .

PRESENTED: by Sabin, G.M., Academician AS UkrSSR

SUBMITTED: December 9, 1961

Card 2/2

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2

BONDAR, M.G. [Bondar, M.H.], prof., doktor tekhn.nauk

Bridges shorten the distance. Znan.ta pratsia no.8:5-6 Ag '62.
(MIRA 15:12)
(Bridges, Concrete)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2"

S/021/63/000/003/010/022
D405/D301AUTHOR: Bondar, M. X.TITLE: Approximate integration of oscillation equation of
nonlinear systems which are nearly conservative

PERIODICAL: Akademiya nauk UkrRSR. Dopovidi. no. 3, 1963, 332-335

TEXT: The nonlinear equation

$$\ddot{x}(t) + N(x) \cdot \dot{x}(t) + F(x) = 0 \quad (1)$$

is considered. For systems which are nearly conservative, i.e. when the second term of Eq. (1) is small as compared to the other terms, this equation can be integrated approximately; for this purpose Eq. (1) is replaced by another equation and the variable time-scale method is used. The expression

$$f(x) \cdot e^{\varphi(t)} = A \cos \varphi(t) + B \sin \varphi(t) \quad (4)$$

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Approximate integration of ...

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will be the solution of Eq. (1) provided that three conditions (with regard to $F(x)$, $N(x)$, and $F'(x)$ respectively) are satisfied. These conditions form a system of 3 differential equations which cannot be solved exactly. An approximate solution is obtained for this system. Two particular cases which are met in practice are considered: The self-oscillation equation and the oscillation equation of a nonlinear system in the presence of viscous friction. In the second case, the approximate solution has the form

$$f(x) = e^{-nt} [f(x_0) \cos \eta(t) + v_0 \sin \eta(t)]$$

By its physical sense, the above approximate method is analogous to the well-known method of slowly-changing amplitudes (Van der Pol's method).

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Approximate integration of ...

S/021/63/000/003/010/022
D405/D301

ASSOCIATION: Dnipropetrovs'kyy instytut inzheneriv zaliznychnogo
transportu (Dnipropetrovs'k Institute of Railroad
Transportation Engineers)

PRESENTED: by Academician H. M. Savin of the AS UkrRSR

SUBMITTED: April 26, 1962

Card 3/3

USSR/Cultivated Plants - Fodders.

II-6

Abs Jour : Vestn. Nauk. - Biol., No 9, 1958, 39353

Author : Bondar', M.I.

Inst : Botanical Garden, AS USSR

Title : Biological Peculiarities of the Wild Rice (*Zizania Aquatica L.*).

Orig Pub : Tr. Botan. sada, AN USSR, 1957, 4, 78-91

Abstract : *Z aquatica L.* whose natural habitat is North America is an annual plant of separate sexes. It is a valuable food and fodder crop, and produces a grain yield of up to 40 cvt/ha. Its grain has high taste qualities and contains many nutritive substances. Its absol. weight is 60 g. *Z aquatica L.* cannot exist outside of water. It is well acclimatized in the Gatchinskiy rayon of the Leningradskaya Oblast (1912). It is distinguished by a high rate

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USSR/Cultivated Plants - Fodders.

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of seed shedding. Experiments show that the seeds keep well in water, in moist sand and in ice. However, in dry air they lose their ability to germinate. At low temperatures (-0°), the quiescent period lasts for 8-9 months. After 9 days it takes the seeds another 4-5 days to germinate in water at indoor temperatures. A description of different phases of development of wild rice and the characteristics of the biology of its blossoming are given. A wide use of wild rice in selection is recommended. -- I.H. Zaikina

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ACCESSION NR: AP4009164

S/0152/63/000/012/0057/0059

AUTHORS: Pirkis, L. N.; Bondar', M. I.; Klimenok, B. V.

TITLE: Carbamide deparaffination of hydrofined diesel fuel

SOURCE: IVUZ. Neft' i gaz, no. 12, 1963, 57-59

TOPIC TAGS: deparaffination, carbamide deparaffination, hydrofining, hydrofined diesel fuel, complex formation, complex forming inhibitors, carbamide crystals, air-dried carbamides

ABSTRACT: Investigation of the effect of hydrofining on the carbamide deparaffination of diesel fuel involved the use of refined and unrefined fuels. The carbamide pulp used in all the experiments contained 75% crystalline carbamide and 25% water, the complex formation taking place at room temperature. The same conditions were used in treatment of both the hydrofined and unrefined fuel. Loss of carbamide activity was found smaller in hydrofined than in unrefined fuel, signifying that the complex-forming inhibitors are destroyed in the hydrofining process. The deparaffination effect is considerably reduced by use of carbamide which has been treated with

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ACCESSION NR: AP4009164

unhydrated diesel fuel. The natural depressing agents are destroyed in the process of hydrofining diesel fuel. Repeated use of the water-carbamide pulp for complex formation reduces its activity because surface-active substances (complex forming inhibitors) are adsorbed on the crystalline carbamide pulp. There are considerably fewer complex formation inhibitors in hydrofined than in unrefined diesel fuel. When there are no complex formation inhibitors, the paraffine reacts with air-dried carbamide. Orig. art. has: 2 figures, 2 tables.

ASSOCIATION: Ufimskiy neftyanoy institut . . . (Ufa Petroleum Institute)

SUBMITTED: 25Sep63

DATE ACQ: 14Feb64

ENCL: 00

SUB CODE: CH, FL

NR REF SOV: 003

OTHER: 000

Card 2/2

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2

BONDAR, M.I.

Acclimatization of wild rice in the Ukraine. Visnyk Bot.sada AN
URSR no.1:38-44 '59. (MIRA 13:8)
(Ukraine--Wild rice)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2"

ACCESSION NR: AP4019334

S/0152/64/000/002/0045/0048

AUTHOR: Pirkis, L. N.; Bondar', M. I.; Klimenok, D. V.

TITLE: Carbamide deactivation in deparaffinization of diesel fuels

SOURCE: Ivuz. Neft' i gaz, no. 2, 1964, 45-48

TOPIC TAGS: diesel oil deparaffinization, carbamide inhibition, aluminosilicate catalyst, oil adsorption purification, carbamide pulp, diesel oil

ABSTRACT: Carbamide-aqueous pulps used in the deparaffinization of diesel fuels become deactivated by inhibitors which stop the formation of complexes. The inhibitors collect on the carbamide surface. The purpose of the authors was to find a method of eliminating the inhibitors. They found that adsorption purification of diesel oil with aluminosilicate catalyst (pellets, uncrushed) at 80 C in an adsorption column achieves the goal. It was further found that together with complex forming inhibitors, depressants are also eliminated. The more complete their elimination, the smaller the deparaffinization effect. The presence of biuret in carbamide lowers the deparaffinization effect. It is expedient to provide adsorption purification of the raw material for the

Card 1/2

ACCESSION NR: AP4019334

elimination of sulfur and natural inhibitors. Orig. art. has: 3 figures,
no formulas, 4 tables.

ASSOCIATION: Ufimskiy neftyanoy institut (Ufa Petroleum Institute)

SUBMITTED: 26Jul63 DATE ACQ: 27Mar64 ENCL: 00

SUB CODE: FP NO REF Sov: 001 OTHER: 000

2/2
Card

PIRKIS, L.N.; BONDAR', M.I.; KLIMENOK, B.V.

Carbamide deactivation in the carbamide dewaxing; of diesel fuels.
Izv. vys. ucheb. zav.; neft' i gaz 7 no.2:45-48 '64. (MIRA 17:10)

1. Ufimskiy neftyanoy institut.

BONDAR', L.N.; ZELINSKAYA, M.R.; PORFIR'YEV, V.A.; STREZHNEVA, K.M.

Precise measurement of lunar radiation on the 3.2 cm wavelength.
Izv. vys. ucheb. zav.; radiofiz. 5 no.4:802-804 '62. (MIRA 16:7)

1. Nauchno-issledovatel'skiy radiofizicheskiy institut pri
Gor'kovskom universitete.

(Moon--Observations) (Radio astronomy)

BONDAR', M.I.

Experiment in acclimatizing *Zizania aquatica* L. and *Z. latifolia*
Turcz. in the Ukraine. Biul.Glav.bot.sada no.33:28-38 '59.
(MIRA 12:10)

1. Botanicheskiy sad Akademii nauk Ukrainskoy SSR.
(Ukraine--Wild rice)

BONDAR, M.I.

Raising wild rice in shallow waters. Visnyk Bot. sada AN URSR
no. 2:49-52 '60. (MIRA 14:4)
(Ukraine—Wild rice)

PIRKIS, L.N.; BONDAR', M.I.; KLIMENOK, B.V.

Carbamide dewaxing of hydrocleaned diesel fuel. Izv.vys.ucheb.
zav.; neft' i gaz 6 no. 12;57-59 '63. (MIRA 17:5)

1. Ufimskiy neftyanoy institut.

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2

BONDAR', M.K., inzh.; GOL'DIN, P.N., inzh.

Determining inertia moments of a circular segment and of
a sector of a ring. Vest.mash. 42 no.3:41-42 Mr '62.

(MIRA 15:3)

(Moments of inertia)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2"

BONDAR, M.M.

"Roman money in the Ukraine" by M.IU.Braichevs'kyi. Reviewed by
M.M.Bondar. Dop.AN URSR no.2:256-259 '60. (MIRA 13:6)
(Ukraine--Numismatics, Roman)
(Braichevs'kyi, M.IU.)

L 16933-63EWP(q)/EWT(m)/BDS AFFTC JD/JG
S/185/53/008/004/014/015

58

AUTHOR: Movchan, Ye. O., Bondar, M. M.

TITLE: Certain properties of germanium doped with La, Pr and Nd

PERIODICAL: Ukrayins'kyj fizychnyj zhurnal, v. 8, no. 4, April 1963, 496-497

TEXT: Experimental results show that La, Pr, and Nd are donor impurities in Ge. The ionization energy of these impurities is small which confirms the stability of the concentration of current carriers in 77-300°K range as well as the identical order of the value τ of the doped and initial materials. The solubility of these elements in Ge is approximated at 3×10^{15} atoms/cm³ while their segregation factor is $k \rightarrow 1 \times 10^{-5}$.ASSOCIATION: Instytut napivprovodnykh AN URSR (Institute of Semiconductors,
Ukrainian Academy of Sciences, Kiev)

SUBMITTED: Oct 11, 1962

Card 1/1

PHASE I TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 748 - I

BOOK

Call No.: AF326416

Authors: BONDAR', M. P., Kand. of Tech. Sci., ORLIKOV, M. L.,
Kand. of Tech. Sci., LOPATA, A. Ya., Eng.

Full Title: ADJUSTMENT OF AUTOMATIC AND SEMI-AUTOMATIC LATHES

Transliterated Title: Naladka tokarnykh avtomatov i poluavtomatov

PUBLISHING DATA

Originating Agency: None

Publishing House: State Scientific and Technical Publishing House
of Machine-Building Literature (MASHGIZ), Kiiev

Date: 1950 No. pp.: 275 No. of copies: 7,500

Editorial Staff: Sivay, A. V., Dotsent - Editor

Vasilenko, I. I. Eng. - Appraiser

PURPOSE: This is a hand-book for machinists, foremen and workers who
set up and tune automatic and semi-automatic lathes of Russian
make, to familiarize them with the construction of these machines
and their adjustment.

TEXT DATA

Coverage: Basic types of Russian automatic and semi-automatic
machine tools, their characteristics, their schematic layouts,
their use, their merits and shortcomings are briefly dealt with.
Then this book describes in detail the individual typical
Russian automatic and semi-automatic machines and the step-by-step

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Naladka tokarnykh avtomatov i poluavtomatov

AID 748 - I

procedure for their adjustment and tune up. It presents in detail the preliminary check up of the machines and the preparation of all the needed rigging and equipment for their analysis and proper adjustment. Various defects and spoilage of products of automatic and semi-automatic machines are listed, the causes of failures are traced and analyzed, and the remedies needed for their correction indicated. A minute description of individual typical automatic and semi-automatic machines follows.

It describes all phases of their operation and set up, and is substantiated with mathematical formulae and tables for the final and other tune-ups. The most widely used automatic and semi-automatic machines are given specific chapters. These include the automatic single-spindle longitudinal shaping lathe, model 110; the one-spindle automatic turret lathe, model 1136, and its variations, models 1136-U, 1124 and 1124-U; the automatic single-spindle shaping and cutting machine 1106; the model 116-2 semi-automatic multi-cutting machine and its variations, the 1A16-2 and 1B16-2 semi-automats; the multi-cutting semi-automatic machine model 1730 (with tracing controls); and the six-spindle automatic bar machine, model 1261. The text is profusely illustrated and has 25 tables. Some GOST standards are cited.

2/3

Naladka tokarnykh avtomatov i poluavtomatov

AID 748 - I

No. of References: 16, Russian; 1938-1948

Facilities: The Kiyev Polytechnical Institute.

3/3

KOROLEV, F.K., dotsent, kandidat tekhnicheskikh nauk; BONDAR', M.P.,
kandidat tekhnicheskikh nauk, redaktor; GAL'PERIN, Ye.I., inzhener,
retsenzent; KHAYMOVICH, Ye.M., professor, doktor tekhnicheskikh
nauk, retsenzent; NESTERENKO, D.M., tekhnicheskiy redaktor

[Calculations for transverse planing machines] Raschet poperechno-
strogal'nykh stankov. Kiev, Gos. nauchno-tekhn. izd-vo mashino-
stroit. lit-ry, 1952. 100 p. [Microfilm] (MLRA 7:10)
(Planing machines)

KRZHIVITSKIY, B.N., dotsent, kandidat tekhnicheskikh nauk; BONDAR', M.P.,
kandidat tekhnicheskikh nauk, retsenzent; LOPATA, A.Ya., inzhener,
redaktor; RUDENSKIY, Ya., tekhnicheskiy redaktor.

[Fastening cutting tools on automatic and semiautomatic lathes]
Kreplenie instrumentov na tokarnykh avtomatakh i poluavtomatakh.
Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. i sudostroit.
lit-ry, 1953. 49 p. (MLRA 7:8)
(Lathes)

BONDAR', M.P., kandidat tekhnicheskikh nauk; KOBUS, Yu.I., inzhener,
retsentent.

[Automatic and semiautomatic lathes; design and calculation] Tokarnye
avtomaty i poluavtomaty; konstruirovaniye i raсchet. Kiev, Gos. nauchno-
tekhn. izd-vo mashinostroit. i sudostroit. lit-ry [Ukr. otd-nie] 1953.
255 p. (Lathes) (Automatic control)

(MIRA 7:6)

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2

B. T. R.
Vol. 3 No. 4
Apr. 1954
Wood and Forest Products

5-125* Automatic Grinding of Wood Pulp in Rollers.
(Russian) M. P. Bondar and N. M. Iantchevskii. *Promyshlennost*, v. 23, no. 10, Oct. 1953, p. 9-10.
Describes operation of various grinders. Graphs, diagrams.

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2"

BONDAR', Mikhail Pavlovich, kandidat tekhnicheskikh nauk; ORLIKOW, Mikhail L'vovich, kandidat tekhnicheskikh nauk; LOPATA, Aleksandr Yakovlevich, kandidat tekhnicheskikh nauk; DUBINSKIY, L.M., inzhener, retsenzent; SOROKA, M.S., redaktor.

[Repairing automatic and semiautomatic lathes] Naladka tekarnykh avtomatov i poluavtomatov. Izd. 2-oe, perer. Kiev. Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 341 p. (MLRA 9:5)
(Lathes)

TEPINKICHIYEV, Vladimir Karpovich; ZAMANSKIY, S.M., inzhener, redaktor;
LEUTA, V.I., redaktor izdatel'stva; BONDAR', M.P., kandidat
tekhnicheskikh nauk, retsenzент; KUDENSKIY, Ya.V., tekhnicheskiy
redaktor.

[Overload protectors of machine tools] Predokhranitel'nye ustroistva
ot peregruzki stankov. Kiev, Gos.nauchno-tekhn.izd-vo mashinostroit.
lit-ry, 1957. 137 p.
(Automatic control) (Machine tools)

(MLRA 10:6)

MAL'TSEV, Vasiliy Fedorovich; BONDAR', M.P., dotsent, kand.tekhn.nauk,
retsenzent

[Free-wheeling roller mechanisms] Bolikovye mekhanizmy svobodnogo
khoda. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry,
1959. 178 p. (MIRA 12:10)
(Mechanical engineering)

PHASE I BOOK EXPDITIONS	
25(4)	Machine-Automatics' obshchetsvo mehanostroitel'stva preprintnoe.
	Kievskoye oblastnoye gosudarstvennoye nauchno-tekhnicheskoye predpriyatiye.
	Mashinostroyeniye i avtomatika v mehanicheskoyi: [obzorki stately] (mechanization and automation in machine manufacturing; Collection of Articles). Kiev, Naukova Dumka, 1979. - 265 p. - 8,000 copies printed.
	Bl. of Publishing House: N.I. Serebryakov, Chief Ed. (Southern Division, Naukova Dumka) V.A. Serebryakov, Machinery Material Board: N.M. Gal'yanov, S.S. Zalevchenko, V.A. Logachev, N.M. Lyubis, M.I. Orlilov, L.D. Poyarkov, Ye.L. Rukavishnikov (Intro. Bl.), and G.I. Khargashina.
	SYNOPSIS: Machine-automatics' obshchetsvo mehanostroitel'stva preprintnoe.
	BL. of Publishing House: N.I. Serebryakov, Chief Ed. (Southern Division, Naukova Dumka) V.A. Serebryakov, Machinery Material Board: N.M. Gal'yanov, S.S. Zalevchenko (Intro. Bl.), and G.I. Khargashina.
	SYNOPSIS: This book is intended for engineers and technical personnel in machine and instrument-manufacturing plants and scientific research institutes.
	CONTENTS: This book contains reports made by workers of design and instrument-manufacturing plants, scientific research institutes, and educational institutions at the 2nd Kiev Scientific, Technical and Production Conference devoted to problems of mechanization and automation of production processes. The conference was organized by the Kiev Oblast Administration and the NTO Mashproekt (Scientific and Technical Association of the Kiev Polytechnic Institute). These and the Ukrainian Republic's design division of the KPI Polytechnic (Scientific and Technical Division of the Ukrainian Machine-Manufacturing Industry). These reports describe current problems encountered in mechanization, automation, and control operations, and progressive work practices in manufacturing machines and instruments. Ed. Gorbunov, S.M. Zamazhny, A.G. Ivashchenko, V.I. Krasnoshchekov, N.N. Gerasimov, and A.P. Tikhonov participated in preparing the book. There are no references.
	Selection of Laws of Motion and Drive Diagrams of the Working Elements of Automatic Machines (A.I. Orlilov)
	Problems in the Automation of Tool-cutting Machines (A.E. Pashov)
	Improving the Operational Capabilities of the Clamping Mechanisms on Automatic Lathes (G.Z. Litvinenko)
	Automatic Tooling Using an Arithmetic and Geod-mechanics Lattice (E.P. Smirnov) Some Problems in the Organization of Automatic Lines for Manufacturing Parts and Bits (A.I. Orlilov)
	Method of Planning Technological Processes for Automatic Tooling-on-Optical Lathes (G.Z. Litvinenko)
	Automation of Circular Saw Milling Process (A.I. Isayev)
	Automation of the Technological Cycle for Drilling Plane Parts Made of Hardened Steel (V.I. Kuznetsov)
	Mechanization and Automation of the Technological Process of Casting Gutter Cylinder Lenses (V.I. Meshchikov, A.I. Smirnov)
	Use of Hydraulics Servo Drives on Preliminary Die-Purifying Equipment (D.S. Devina)
	Some Problems of Mechanization and Automation of Holding Processes (I.I. Zhuravlev)
	Planning of Technological Processes in Machine Manufacturing (Ye.M. Fomichev)
	Problems of Construction and Use of Programming Devices (O.A. Stoyan, E.P. Kvitkovsky)
	Present State and Prospects for the Development of Hydrodrives and Hydraulics in Machine Manufacture (Ye.M. Fomichev)
	Experimental Study of Hydraulic Copying Systems at High-Speed Mechanism Speeds (A.Y. Demchenko)
	On Choosing Dimensions of Small Orifices in Elements of Hydraulic Mechanisms (G.I. Serebryakov)
	Automatic Sorter for Ball Bearing Rings (V.V. Novov)
	Automatic Differentiated Control of Thread Mechanisms (G.G. Nikiforov)
	Problems of Automatic Inspection of Out-of-roundness of Cylindrical Parts (A.I. Kolyvanov)
	Automation of the Casting Process and Increased Productive Capacities of Technologically Closed Sectors (L.A. Politsik)

25(7)

PHASE I BOOK EXPLOITATION

SOV/3072

Bondar', Mikhail Pavlovich, Aleksandr Yakovlevich Lopata, and Mikhail L'vovich Orlikov

Tokarnyye avtomaty i poluavtomaty (Automatic and Semiautomatic Lathes)
Kiyev, Mashgiz, 1959. 450 p. 30,000 copies printed.

Reviewers: I.I. Kufturskiy, Engineer, and V.V. Korshunov; Eds.:
V.I. Leuta, Engineer, and M.S. Soroka; Chief Ed. (Southern Division,
Mashgiz): V.K. Serdyuk.

PURPOSE: This textbook is intended for students in technical and
trade schools.

COVERAGE: This textbook describes constructions of automatic and
semiautomatic lathes used in Soviet industry. The technology of
machining as it applies to turning operations on different types
of lathes is discussed. Questions of maintenance and setup of
lathes, safety precautions, and the organization of the work area
are examined. The authors thank A.I. Tereshchenko, S.M. Zamanskiy,

Card 1/6

Automatic and Semiautomatic Lathes

SOV/3072

A.I. Rostovtsev, P.V. Levashev, and Ya.P. Mezivetskiy of the Moskovskiy stankozavod imeni S. Ordzhonikidze (Moscow Machine Tool Plant imeni S. Ordzhonikidze) and the Kiyevskiy stankozavod imeni Gor'kogo (Kiyev Machine Tool Plant imeni Gor'koy) for their presentation of material on new automatic lathes. There are 13 references, all Soviet.

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Automatic and Semiautomatic Lathes

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Automatic and Semiautomatic Lathes

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AVAILABLE: Library of Congress 449

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VK/bg
2-9-60

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CIA-RDP86-00513R000206210017-2"

PHASE I BOOK EXPLOITATION

SOV/4639

Bondar', Mikhail Pavlovich

Novoye v konstruirovani mekhanizmov (New Aspects in the Designing of Mechanisms)
Kiyev, Gostekhizdat UkrSSR, 1960. 191 p. 5,000 copies printed.

Ed.: G. Gavrilova; Tech. Ed.: S. Shafeta.

PURPOSE: This book is intended for engineers and students engaged in the design,
repair and operation of various types of machinery.

COVERAGE: The book deals with a new method of designing mechanisms, in which
friction forces, clearance in joints, and three-dimensional nature of forces
are given more exact consideration. The basis of the method presented is the
computation of separate kinematic pairs, with due consideration given to the
nature of acting forces and reaction determined in conformity with the contact-
stress problem of the theory of elasticity. Sample calculations are given. No
personalities are mentioned. There are 35 references: 33 Soviet and 2 English.

Card 1/3

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2

BONDAR', M.P., dotsent, kand.tekhn.nauk; FEDORETS, V.A., inzh.

Coefficients of static friction. Vest.mash. 41 no.4:30-32 Ap
'61. (MIRA 14:3)
(Friction)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2"

BONDAR', M.P., kand.tekhn.nauk

Starting efficiency of machines and its determination. Mashinostroenie no.6:93-65 N-D '62. (MIRA 16:2)

1. Zaporozhskiy mashinostroitel'nyy institut.
(Machinery--Labor productivity)

BONDAR¹, M.P., kand. tekhn. nauk

Rated determination of the slip of rolling cylinders. Vest. mashinostr. 44 no.11:34-36 N '64
(MIRA 18:2)

BONDAR', M.P., kand. tekhn. nauk; SMIRNOV, A.S., inzh.

Increasing the reliability of cam-lever mechanisms of automatic single-spindle turret lathes. Mashinostroenie no.2:16-18 My-Je '65.
(MIRA 18:6)

BONDART', M. V. -- "Vitamin "C" in Newborn." *(Dissertations For Degrees In Science and Engineering Defended at USSR Higher Educational Institutions)(29) Ukrainian Sci Res Inst of Protection of Mothers and Children, imeni Hero of Soviet Union Professor P. M. Buyko, Kiev, 1953

SO: Knizhnaya Letcpis' No 29, 16 July 1955

* For the Degree of Candidate in Medical Sciences

BONDARU, V. V.
Human Nutrition

Dissertation: "Vitamin C in Newborn Infants." Cand Med Sci, Kiev Order of
Labor Red Banner Medical Inst imeni Academician A. A. Bogomol'yets, 25 Mar 54.
(Pravda Ukrayiny Kiev, 15 Mar 54)

SO: SUM 213, 20 Sep 1954

BONDAR', M.V., kand. med. nauk; DASHKEVICH, V.Ye.; SADOVSKAYA, A.G.

Edematous form of the hemolytic disease in newborn infants. Aknsh. 4
gin. no.6:52-56 N-D '63. (MIRA 17:12)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta okhrany materin-
stva i detstva imeni P.M.Buyko (direktor - kand. med. nauk A.G.Pap).

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2

BONDAR, M.Ya., tekhnik-mekhanik.

Utilizing discarded connecting rod bushings of the D-54 engine.
Mekh. sil'. hosp. 9 no.1:15 Ja '58. (MIEA 11:2)
(Bearings (Machinery)) (Tractors--Engines)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2"

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2

BONDAR, M.Ya., tekhnik-mekhanik

Vulcanizing worn rubberized belts. Mekh. sel'. hosp. 9 no.9:15
S '58. (MIRA 11:10)
(Vulcanization)

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CIA-RDP86-00513R000206210017-2"

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2

BONDAR', M.Ya., tekhnik-mekhanik

How to eliminate defects in cast-iron parts of tractors.
Mekh.sil'.noesp. 10 no.12:14 D '59. (MIRA 13:3)
(Tractors--Maintenance and repair)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206210017-2"

KOZLOV, P. (g. Rovno); SOKOLOV, A.; CHERKASOV, N.; YERKIN, M.;
SHCHEGLOV, A., instruktor; BONDAR', N.; MORSHCHININ, S., inzh.
(Kazan'); SOKOLOV, S.; BARINOVA, Z., inzh.

Readers relate, advise and criticize. Sov. profsoiuzy 18 no.18:32-
33 S '62. (MIRA 15:9)

1. Neshtatnyy korrespondent zhurnala "Sovetskiye profsoyuzy" (for Kozlov). 2. Rukovoditel' lektorskoy gruppy oblastnog soveta professional'nykh soyuzov, (for Sokolov). 3. Rabotnik ob'yedineniya "Sel'khoztekhnika", Tlumachskiy rayon, Stanislavskoy obl. (for Cherkasov). 4. Zaveduyushchiy Chelyabinskoy yuridicheskoy konsul'tatsiyey professional'nykh soyuzov (for Yerkin). 5. Rayonnnyy komitet professional'nogo soyusa zheleznodorozhnikov Karagandinskogo otdeleniya Kazakhskoy zheleznoy dorogi (for Shcheglov). 6. Sekretar' postoyanno deystvuyushchego proizvodstvennogo soveshchaniya tsentral'nykh remontnykh masterskikh tresta "Ukrugazneftstroy", Kiyev (for Bondar'). 7. Zaveduyushchiy neshtatnym otdelom truda i zarabotnoy platy pri Kalininskem oblastnom komitete professional'nogo soyusa rabochikh stroitele'stva i promyshlennosti stroitel'nykh materialov (for Sokolov). 8. Krasavinskiy l'nokombinat, g. Krasavino, Vologodskoy obl. (for Barinova).

(Labor laws and legislation) (Trade unions)
(Russia--industries)

BONDAR'; N., inzhener.

A leading truck fleet. Avt.transp. 34 no.2:34 F 156. (MLRA 9:7)
(Kiev--Transportation, Automotive)

BONDAR', N., inzhener.

Efficiency innovators of the auto repair industry. Avt.transp.³⁴
no.5:35 My '56. (MIRA 9:9)
(Kiev--Automobiles--Repair)

BONDAR', N.

Improved blocks used for relieving springs and tires of stored
motortrucks. Avt.transp. 35 no.2:23 F '57. (MIRA 10:12)
(Motortrucks)

BONDAR', N., tekhnik-mekhanik; GONCHARENKO, V.; ANDREYEV, V.; AVLAKHOVA, A.

Editor's mail. Okhr.truda i sots.strakh 5 no.10:32-33 O '62.
(MIRA 15:11)

1. Remontno-mekhanicheskiye masterskiye tresta "Ukrugazneftstroy",
Kiyev (for Bondar'). 2. Tekhnicheskiy inspektor Severo-Osetinskogo
oblastnogo soveta professional'nykh soyuzov, g. Ordzhonikidze (for
Goncharneko). 3. Starshiy inzh. po tekhnike bezopasnosti Stroytresta
No.159, Tashkent (for Andreyev). 4. Predsedatel' gorodskogo komiteta
professional'nogo soyuza meditsinskikh rabotnikov, g. Yalta (for
Avlakhova).

(INDUSTRIAL HYGIENE)

NAZARENKO, P. (Astrakhan'); YURKOVA, T.; BONDAR', N., tekhnik;
PANCHENKO, V.

With public participation. Sov. profsoiuzy 19 no.1:29 Ja '63.
(MIRA 16:1)

1. Chlen soveta kluba lyubiteley teatra pri TSentral'nom Dome
rabochnikov iskusstv, Moskva (for Yurkova). 2. TSentral'nyye
remontnyye masterskiye tresta "Ukrugaznetftstroy", Kiyev (for
Bondar'). 3. Direktor muzykal'noy shkoly na obshchestvennykh
nachalakh, g. Artemovsk, Donetskoy obl. (for Panchenko).

(Community centers)

STAROVEROV, Yu. (Astrakhan'); BONDAR', N. (Kiyev); NEPOMNYASHCHIY, V. (L'vov); MALASHENKO, A. (Krasnodar); LIPOVSKIY, G. (Minsk); AMALYAN, A. (Sukhumi)

Editor's mail. Okhr.truda i sots.strakh. 6 no.2:28 F '63.
(MIRA 16:2)
(Industrial hygiene)

28(1)

SOV/118-59-1-6/16

AUTHOR: Bondar', N.D., Deputy Chairman

TITLE: Technical Progress in the Textile Industry (Tekhnicheskiy progress v tekstil'-noy promyshlennosti)

PERIODICAL: Mekhanizatsiya i Avtomatizatsiya Proizvodstva, 1959, Nr 1, pp 25-28 (USSR)

ABSTRACT: The author states, that while an increasing number of textile plants are extending mechanization of basic technological processes, manual labor still dominates the scene in most of them. The number of workers employed in spinning mills on auxiliary work and transportation reaches 25-37% of total personnel strength. In the weaving plants the figure even reaches 41%. The author enumerates a number of basic applications of mechanization, e.g. cranes, conveyers, elevators, electric trucks, transporters, etc. in a number of plants, such as the Ivanovskiy melanzhevyy kombinat (Ivanovo

Card 1/2

SOV/118-59-1-5/16

Technical Progress in the Textile Industry.

Melange Combine), the Lyuberts'kiy krovovy combinat (Lyubertsy Rug Combine), the Kineshma factories Nr.1,2, the combine imeni Kirov, the factory imeni Balashev, The Novo-Gor'kinskaya textile plant, the Moscow factory imeni T'renze, the plants "Krasnaya Vetka", "Krasnaya Talka", the Dedovsk carton plant, the Cheboksarskiy khlopchatobumazhnnyy kombinat (Cheboksary Cotton Combine) and a number of small factories of certain Sovnarkhozy. The author also mentions certain innovations and work process improvements in certain textile plants, stressing the need for a greater degree of mechanization. On the whole, the article is general in character, devoid of detailed and summarized data.

ASSOCIATION: Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov RSFSR (State Scientific-Technological Committee of the Council of Ministers of RSFSR).

Card 2/2

BONDAR', N.D.

Foreign equipment at the international fair in Zagreb. Biul.tekh.-
ekon.inform.Gos.nauch.-issl.inst.nauch.i tekhn.inform. 18 no.1:38-
40 Ja '65.
(MIRA 18:4)

BONDAR', N.D.

Advanced practices in technical progress to be applied by
all textile enterprises. Tekst.prom. 19 no.12:12-15 D '59.
(MIRA 13:3)

1. Zamestitel' predsedatelya Gosudarstvennogo nauchno-tekhnicheskogo komiteta Soveta Ministrov RSFSR.
(Textile machinery)

BILENKO, M.I.; BONDAR, N.F.; LEBEDIEV, V.F. [Lebediev, V.F.]; KHAIKS, S.M.

Type GIP5-L1 and GIP5-L2 infrared absorption gas analyzers.
Khim. prom. [Ukr.] no.151-53 Ja-M'63 (MIRA 17:7)

1. Lisichanskiy filial DKBA.

*BONDAR, N. G.

CAND Tech Sci

Dissertation: "Rigidity and Frequency of the Natural Vibrations of
Bridge Arched Structures."

16 Mar 49

Moscow Order of Lenin Inst of Railroad Engineers
imeni I. V. Stalin

Bondar, N. G. On the approximation of fundamental functions and functions of small dynamical displacements of rod systems. Akad. Nauk SSSR. Prikl. Mat. Meh. 15, 207-226 (1951). (Russian)

The integro-differential equation governing small forced damped vibrations of rod systems (in the plane or in space) is

$$y(x, t) + \int G(x, s)[f(s, t) + \varphi(s, t)]ds = \int G(x, s)dR(s, t),$$

where $y(x, t)$ is the displacement; $G(x, s)$ is the influence function of the system; $f(s, t)$ and $\varphi(s, t)$ are forcing functions and initial conditions; the solution $y(x, t)$ is called "exact". The solution of the integro-differential equation may be given as an infinite series, which converges the eigenfunctions and eigenvalues of the integral operator.

(*)

Y. B. Dian

whose later symmetric and positive-definite [Gantmacher and Krein, Oscillation matrices and small oscillations of mechanical systems. Moscow-Leningrad, 1941; these Rev. 3, 242]. The author proves first two general theorems concerning the numerical approximation of the eigenfunctions and eigenvalues of (*), and then applies his results to the determination of the displacement of rod systems. Numerical applications are given. Y. B. Dian.

Source: Mathematical Reviews,

Vol. 13 No. 5

EONDAR', N.G.

Frequency of plane, free and continuous vibrations of jointless, parabolic, and
chain arches of a varied cross section'
Inzh. sbor. no. 11, 1952

Mathematical Reviews
Vol. 15 No. 4
Apr. 1954
Mechanics

Erdélyi, N. G. Dynamical stability and vibrations of hinged parabolic arcs. Akad. Nauk SSSR Inzenernyi Sbornik 13, 87-102 (1952). (Russian)

This paper deals with bending vibrations of a symmetrical parabolic arc, clamped at both ends, and takes into consideration that the shape of the arc changes during the vibration. By this, the problem becomes non-linear. First the forced vibrations of a massless elastic arc with a weight in the midpoint (apex) under a periodic force in the same point are dealt with. The equation of motion becomes a very complicated non-linear integro-differential equation. An approximate solution of this equation is found by substituting for the term representing the inertia-forces the expression calculated from the corresponding linear problem, i.e. the same problem solved by neglecting the change of the shape of the arc. Then the mode of vibration is determined by Mathieu's equation, from which can be concluded what choices of the weight in the midpoint, the amplitude and the frequency of the applied force will lead to instability.

In the second part of the paper the vibrations of a homogeneous heavy arc under a uniformly distributed periodic load are treated in the same way.

W. H. Müller.

Dynamic Problems of the Theory of Elasticity and Plasticity

Dissertation: -- "Dynamics of Rod Systems (Arch Bridges)." Dr Tech Sci Inst of Construction Mechanics, Acad Sci UkrSSR, Kiev, 1953. (Referativnyy Zhurnal -- Mekhanika, Moscow, Mar 54)

SO: SUM 213, 20 Sep 54

BONDAR, M.V.; SAVIN, H.M., diysnyy chlen.

Electric model testing of vibrations and stability of rod systems. Dop.AN
URSR no.5:375-382 '53. (MIRA 6:10)

1. Akademiya nauk Ukrayins'koyi RSR (for Savin). 2. Dnipropetrovs'kyi instytut inzheneriv zaliznychnoho transportu im. L.M.Kahanovycha (for Bondar).
(Electric testing)

U.S.S.R.

1237. Bondar', N. G., Solution of dynamic problems of rod systems by means of electric models (in Russian), *Fizika i Sistemika Akad. Nauk SSSR* 16, 87-102, 195

This paper is based mainly on previous work by Tetebaum and Guttmacher (1949) on the solution of differential equations of beams with discrete masses by means of electric models. These consist of $2n$ oscillatory circuits (n number of degrees of freedom) with condensers and coils in parallel, connected by condensers, if magnetic fluxes or the corresponding time integrals of tension are taken as generalized coordinates (second kind of electromechanical analogies).

Conditions of similitude and the choice of parameters for electric models are discussed first under the assumption that the initial values of coordinates and their time derivatives are zero. Experimental results for frequencies of free vibrations in electric models of an arch with clamped ends and of a beam on two supports are from 4 to 10% below the theoretical values. Modifications of electric models are then discussed if viscous friction must be taken into account or if other initial conditions are prescribed.

Vibrations of arches and frames with displacements in two directions can be dealt with by connecting two electric models of the above type by means of condensers and resistors. Cause of systematic discrepancies between the results in electric models and in the corresponding structures are examined and, in the last section, electric models for a beam and an arch are described, where the generalized coordinates are represented by charges in electrical circuits (first kind of electromechanical analogies).

A. Kubelj, Yugoslavia

BOLOTIN, V.V.

Remarks on N.G.Bondar's article "Dynamic stability and vibration of non-hinged parabolic arches" (Inzh.sbor. 13 '52). Inzh.sbor. 17:214-215 '53.
(Arches) (Bondar, N.G.)
(MLRA 7:5)

Bondar, M. G. On dynamical stability of systems of rods
Dopovidi Akad. Nauk Ukrains. RSR 1954, 351-355
(1954). (Ukrainian, Russian summary)

T = F/W

In this paper the integro-differential equations of the dynamical stability of rod systems are given. The connection between the differential and integro-differential equations of dynamical stability is pointed out. A new proof is given to the theorem on separation of variables for the equations of dynamical stability taking account of forces of resistance.

Author's summary.

gjP gw

BONDAR M.G.

Bondar, M. G. Electrical modelling of dynamical stability
of systems of rods. Dopoviti Akad. Nauk Ukrains. RSR
1954, 356-360 (1954). (Ukrainian. Russian summary)

1 - F/W

[Handwritten signature]

BONDAR', N.G., dotsent, kandidat tekhnicheskikh nauk.

Dynamical calculation of beams subjected to moving loads. Issledovaniia po teorii sooruzhenii. Sbornik statei, no.6:11-23 '54.

(MLRA 7:11)

(Structures, Theory of) (Strains and stresses) (Elastic plates and shells)